



The Changing World of Data

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3 Generations in the evolution of data management

- I. Generation: Opening proprietary data (open access, open data)
- II. Generation: Using open data as a means for research (big data, data analytics)
- III. Generation: Applying new technologies for data transaction between individual partners (blockchain, smart contracts)

I. Generation: Opening proprietary data (open access, open data, open innovation, open research, open collaboration)

Challenge: Standards, Formats, API

Goal: Ubiquitary access to content

Examples: plenty, see DATASEA project, e-lis

Paradigm: Open Content

II. Generation: Using open data as a means for research (big data, data analytics)

Challenge: Finding research questions and applications

Goal: Knowledge discovery

Example: Analysis of Google Books (Language development); Jail revolt

Paradigm: Algorithm

III. Generation: Applying new technologies for data transaction between individual partners (blockchain, smart contracts)

Challenge: Trust and transparency in interaction; estimate potential and use cases

Goal: Trustworthy, distributed and secure interactions at peer-to-peer basis

Example: IPR, licences in the music and media industry

Paradigm: Independent Interaction

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